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EXAMINER

BELIVEAU, SCOTT E

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 19

Application Number: 09/298,282
Filing Date: April 23, 1999
Appellant(s): SEZAN ET AL.

Ms. Julie L. Reed
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 25 August 2003.

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(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 1-12 and 14 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

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6,357,042	SRINIVASAN et al.	3-2002
6,236,395	SEZAN et al.	5-2001
6,233,389	BARTON et al.	5-2001

HANJALIC et al., "Automation of systems enabling search on stored video data", 1997.

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-12 and 14 are rejected under 35 U.S.C. 103. Claims 8-11 are rejected under 35 U.S.C. 112 2nd, but is not an issue of consideration of the appeal. These rejections are set forth in prior Office Action, Paper No. 14.

(11) Response to Argument

A. Is claim 1 patentable under 35 U.S.C. 103(a) over Srinivasan, in view of Hanjalic, and in further view of Sezan?

In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The Srinivasan reference is cited to generally disclose a method for authoring or adding additional information to a video stream in a manner that may identify "key clip data". The examiner respectfully disagrees with the appellant's position that the "key clip data" that is authored does not meet claimed limitations with respect to how key clips are now defined in claim 1. As recited in claim 1, "key clips are comprised of one of either at least one key event or at least one key object". The specification discloses that a "key event" may be

representative of a scoring opportunity (Page 5, Lines 15-17), and further discloses that a key frame may be equated to a key clip comprising a single frame (Page 6, Lines 1-3).

Accordingly, it is the examiner's opinion that a key frame may be further equated to a "key object" in so far as a video frame is a MPEG object. As set forth in the rejection, the Srinivasan reference, as illustrated in Figure 15, is operable to enable the authoring of a "key clip" such one illustrating a "key event" such as a scoring opportunity.

With respect to the claimed limitations as to the usage of descriptors in the MPEG PSIP stream so as to correspond to the key clips of the instant application, as noted in the Final Rejection, the Srinivasan reference is silent as to the particular details pertaining to a direct correspondence. Accordingly, the examiner relies upon the Hanjalic article to illustrate a "data service authoring subsystem" and "data service encoder" that is operable to automate the generation of "key clips" such that the "key clip data includes descriptors that directly correspond to descriptors in the PSIP data" (Sections 5.1 and 5.2). The examiner concurs that the Hanjalic article references the use of "key frames" as opposed to explicitly referencing "key clips", however, as aforementioned, it is the examiner's opinion that a key frame is a type of key object or may illustrate a key event in the case of a scoring opportunity. Furthermore, as noted by applicant's remarks in conjunction with claim 4, the appellant appears to concede that the definition of key clips may include key frames (Page 7, Lines 6-11). Thus, when taken in combination, it is the examiner's opinion that the aforementioned claimed limitations are met.

With respect to the limitation pertaining to the particular usage of broadcasting the wherein further customization may occur at the receiver, as illustrated in conjunction with

Figure 16 of the embodiment is operable to distribute the aforementioned information in a “format that allows customization at the receiver” wherein, for example, particular advertisements based on end user profile information may be displayed to the user (Col 36, Lines 10-24). Such information may be distributed in a “format” such as that associated with the MPEG standard (Col 6, Lines 41-53; Col 29, Lines 17-36; Col 35, Lines 20-36).

Alternatively, the examiner relies upon the Sezan reference to generally disclose a “receiver” that is operable to receive data in a variety of formats so as to produce customized content from that data (Col 7, Lines 63-67 – Col 8, Lines 1, 21-29; Col 12, Lines 17-27). The Sezan reference is not relied upon by the examiner with respect to claim 1 so as to address the issue of providing this information in the context of a thin broadcast, nor does the claim appear to require such in conjunction with the receiver. As aforementioned, the limitations pertaining to a “thin broadcast” or authoring capabilities are believed to be addressed by the combined Srinivasan and Hanjalic references.

B. Is claim 2 patentable under 35 U.S.C. 103(a) over Srinivasan, in view of Hanjalic, and in further view of Sezan?

With respect to the rejection of claim 2, as aforementioned it is the examiner’s opinion that the combined references teach the identification of key clips as claimed. The Srinivasan reference explicitly discloses the use of the MPEG-2 presentation time stamp (PTS) construct and further suggests the use of any other time stamp for “referencing key clips” (Col 3, Lines 47-52; Col 6, Lines 41-47; Col 13, Lines 4-8, 64-67 – Col 14, Line 1). With respect to the particular method for referencing the key clips, the examiner concurs that there are a number of standardized timing markers associated with the MPEG-2 encoding. However, the

examiner's rational in presenting the selection between the various types as a design decision was that the specification does not disclose or suggest that the particular selection of encoding using any of the aforementioned timing markers references solves any particular problem or is for a particular purpose. The appellant's remarks pertaining to the advantage of using such as being "standard" is not explicitly disclosed in the specification.

Accordingly, as the Srinivasan reference explicitly discloses that it may utilize any other time stamp method for referencing key clips, it is the examiner's opinion that one having ordinary skill in the art would recognize that usage of any particular standardized timing reference associated with MPEG-2 would constitute a design consideration that is not patentably distinctive over the art.

C. Is claim 3 patentable under 35 U.S.C. 103(a) over Srinivasan, in view of Hanjalic, and in further view of Sezan?

With respect to the rejection of claim 3, as aforementioned it is the examiner's opinion that the combined references teach the identification of key clips as claimed. Further, as discussed in conjunction with claim 2, it is the examiner's opinion that the selection of identifying the key clips using a PCR/LTR MPEG-2 pair would constitute a design decision in view of the broad suggestion to utilize any other time stamp for "referencing key clips".

D. Is claim 4 patentable under 35 U.S.C. 103(a) over Srinivasan, in view of Hanjalic, and in further view of Sezan?

With respect to the rejection of claim 4, as aforementioned it is the examiner's opinion that the combined references teach the identification of key clips as claimed. Further, as discussed in conjunction with claim 2, it is the examiner's opinion that the inclusion of a

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“video reference generator” in order to reference key clips using a PCR/LTR MPEG-2 pair in view of the broad suggestion to utilize any other time stamp for “referencing key clips”. As to the particular nature of the “video reference generator”, such that it references “key clips” and not just “video frames” as noted by the appellant, it is noted that the features upon which appellant relies (i.e., that the video reference generates references to key clips, not just ‘video frames’) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Alternatively, the number/time marker-generator module [99] could be construed as a “video reference generator” (Col 18, Lines 31-34).

With respect to appellant’s remarks attempting to further differentiate between key clips and key frames, the examiner is confused by the appellant’s remarks. In particular, the appellant appears to concede that the definition of key clips, which was previously argued in relationship to the claims to preclude the usage of key frames, may now include key frames but ones that different from those disclosed by Srinivasan and Hanjalic (Page 7, Lines 6-11). With respect to the claim language, however, it is the examiner’s opinion that the definition of the “key clips” as claimed is still met. The appellant states that key frames in Hanjalic are representative frames of a particular video sequence. The specification states that key frames may be those that are most representative of the program content (Page 2, Lines 3-6). Similarly, the appellant acknowledges the usage of video clips in conjunction with Srinivasan. However, it is unclear to the examiner as to how a video clip illustrating a “key

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event” or scoring event such as a touchdown would not be construed as a “key clip” under the claimed definition.

E. Is claim 5 patentable under 35 U.S.C. 103(a) over Srinivasan, in view of Hanjalic, and in further view of Sezan?

With respect to the rejection of claim 5, as aforementioned it is the examiner’s opinion that the combined references teach the identification of key clips as claimed. As aforementioned, the Srinivasan reference explicitly discloses the use of the MPEG-2 presentation time stamp (PTS) constructs and further suggests the use of any other time stamp for “referencing key clips” (Col 3, Lines 47-52; Col 6, Lines 41-47; Col 13, Lines 4-8, 64-67 – Col 14, Line 1).

F. Is claim 6 patentable under 35 U.S.C. 103(a) over Srinivasan, in view of Hanjalic, and in further view of Sezan?

With respect to the rejection of claim 6, as aforementioned it is the examiner’s opinion that the combined references teach the identification of key clips as claimed. Further, as discussed in conjunction with claim 2, it is the examiner’s opinion that the selection of identifying the key clips using start times or stop references of key clips such as a video clip highlighting a touchdown would constitute a design decision in view of the broad suggestion to utilize any other time stamp for “referencing key clips”.

G. Is claim 7 patentable under 35 U.S.C. 103(a) over Srinivasan, in view of Hanjalic, and in further view of Sezan?

In response to appellant's argument that the references fail to show certain features of appellant’s invention, it is noted that the features upon which appellant relies (i.e., the

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inclusion of a defined format in which key clips are identified at the transmitting end) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The appellant's arguments appear to be summarizing previously stated positions, but do not address the particular claim limitations of claim 7.

H. Is claim 8 patentable under 35 U.S.C. 103(a) over Sezan, in view of Hanjalic, and in further view of Barton?

With respect to the particular usage of a “demultiplexing and decoding module”, such a module [60] is illustrated in conjunction with Figure 3 and the Sezan reference explicitly discloses the particular usage/extraction of PSIP data and any other information available from data sources in identifying “key clips” (Col 7, Line 63 – Col 8, Lines 1-29; Col 12, Lines 17-27). As noted in the Final rejection, the reference does not explicitly make reference to the usage of the MPEG-2 standard in conjunction with the PSIP information, however, it is the examiner's opinion that given the suggestion by the Sezan reference that the program may originate from any suitable source including that associated with digital television (Col 7, Lines 54-63) that it would have been obvious to one having ordinary skill in the art that the decoder [60] in the receiver would utilize a similar demultiplexer/decoder as that utilized by the audio-visual program input format.

With respect to the “summarizer” [42/44] of the Sezan reference, as noted by the applicant the embodiment is operable to generate summaries using several sources available information including PSIP data (Col 8, Lines 21-29). These summaries may comprise

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highlights, which according to the specification in the section entitled background of the invention may be construed as a set of frames, namely key frames (Page 2, Lines 4-6). Subsequently, it is the examiner's opinion that the "key clips" as particularly claimed and referenced in the appellant's specification is a form of "key frames". As to the limitations pertaining to the particular usage of using PSIP information to particularly identify "key clips", the Hanjalic article discloses a "summarizer" wherein "descriptors that directly correspond to descriptors in the PSIP data" are utilized to in order to provide identification of services and events for the user (Sections 5.1 and 5.2).

As to the particulars requiring both a short-term and a long-term memory, the Sezan et al. reference teaches that the storage unit may comprise any storage device such as memory or magnetic media (Col 9, Lines 7-8) and that it is operable to store both the "programs and summaries" as disclosed in the operational example of the device (Col 9, Lines 34-67 – Col 10, Lines 1-37). Accordingly, it is the examiner's opinion that the claimed limitations may be met with a single memory embodiment such as a hard drive that would "allow" video information to be stored on both a "long term" or a "short term" basis. Neither the specification, nor the claim, are limiting or define the basis of what is meant by "long term" as opposed to "short term". For example, a user might decide to store a particular program such as the highlights of the sporting events on a "short term basis" such that the program is deleted subsequent to viewing and similarly store the highlights of a new brother's baby girl on a "long term basis" for sentimental reasons.

I. Is claim 9 patentable under 35 U.S.C. 103(a) over Sezan, in view of Hanjalic, and in further view of Barton?

In consideration of claim 9, the appellant appears to concede that the Sezan reference is operable to facilitate within program filtering. It is the examiner's opinion that such "filtering" may be based on key objects and/or events as aforementioned and may subsequently produce program related information associated with the program in the form of title text [68] or other information (Col 9, Line 64 – Col 10, Line 4). Accordingly, it is unclear to the examiner as to why one having ordinary skill in the art would necessarily conclude that the particular within program filtering of Sezan would filter on the basis of key events or objects in conjunction with the selection of highlights or important moments which form a program summary.

J. Is claim 10 patentable under 35 U.S.C. 103(a) over Sezan, in view of Hanjalic, and in further view of Barton?

In response to appellant's argument that the references fail to show certain features of appellant's invention, it is noted that the features upon which appellant relies (i.e., the particular usage of both long-term and short term storage) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

It is the examiner's opinion that the claim merely requires for the program related information to comprise description information that is usable as indices for database archival of said audiovisual programs. Accordingly, it is the examiner's opinion that the

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claimed limitations may be met wherein “program related information” associated with the program and system description schemes are usable as an “index” for use in “database archiving” and retrieval of audiovisual programming (Col 9, Lines 19-22; Col 12, Lines 56-65). An “index” as defined by the Microsoft Computer Dictionary 5th Edition is “in a database, to find data by using keys such as words or field names to locate records”.

Accordingly, it is the examiner’s opinion that the claimed limitations are met wherein the such that the aforementioned program related information is utilized as a “database index” for the retrieval of stored or “archived” information.

K. Is claim 11 patentable under 35 U.S.C. 103(a) over Sezan, in view of Hanjalic, and in further view of Barton?

In response to appellant's argument that the references fail to show certain features of appellant's invention, it is noted that the features upon which appellant relies (i.e., the particular usage of both long-term and short term storage) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to the particular usage of the user preferences, it is the examiner’s opinion that the summarizer module [42/44] utilizes the user preferences [20] in conjunction with “generating said program-related information and said summaries” (Col 8, Lines 21-29). With respect to the usage of the “user preferences” in conjunction with the “decoding and demultiplexing module” [60], it is the examiner’s opinion that such is used wherein the embodiment disassembles the input program stream based on the aforementioned “user

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preferences” such that the embodiment tunes to the desired programming in conjunction with automatically recording desired programming (Col 9, Lines 48-42; Col 10, lines 30-37).

L. Is claim 12 patentable under 35 U.S.C. 103(a) over Sezan in view of Hanjalic?

With respect to claim 12, the claim is not limiting with respect to the nature of what is particularly defined as a key clip versus a key frame. Accordingly, it is the examiner’s opinion that the key frame extraction module [76] meets the claimed limitations such that the extraction of highlights or important moments on the basis of PSIP information is performed (Col 8, Lines 30-48). As to the limitations pertaining to the “description extraction module”, it is the examiner’s opinion that this limitation is met by decoder/demultiplexor [60] (Col 8, Lines 21-29). The “key-clip map table” as illustrated in Figure 14 comprises a map of video references and times (Col 26, Lines 51-54).

With respect to the particular usage of an “interference engine”, it is the examiner’s opinion that the claimed limitations are met by the “program summarizer” [42/44] which is operable to “combine audiovisual program description with PSIP information, user preferences, and any other available program information” as required by the claim (Col 7, Lines 63 – Col 8, Lines 1, 14-29; Col 5, Lines 46-50). Accordingly, the examiner’s rejection does not rely on the inherency of the module. The Hanjalic article discloses a “summarizer” wherein “descriptors that directly correspond to descriptors in the PSIP data” are utilized to in order to provide identification of services and events for the user (Sections 5.1 and 5.2). As noted in the Final Rejection, it is the examiner’s opinion that the Hanjalic article supplies the missing limitations pertaining to the particular use of “descriptors that directly correspond to descriptors in the PSIP information” in conjunction with the identification of “key clips”.

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M. Is claim 14 patentable under 35 U.S.C. 103(a) over Sezan in view of Hanjalic?

With respect to claim 14, it is the examiner's opinion that the claimed limitations pertaining to the usage of any available information including information from a website is met by the Sezan reference (Col 5, Lines 25-29; Col 7, Line 63 – Col 8, Line 1).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


SEB

November 26, 2003

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